

## **Chapter 3. Financial Plan**

### **Introduction**

Securing funding for a proposed Sedona shuttle service is a significant challenge that will need to be addressed through a variety of funding sources. This chapter presents a series of potential revenue sources that could be available to meet this goal. A matrix describing the range of funding sources and their potential applicability may be found in Appendix C.

The initial operating plan proposed for this shuttle service requires the identification of \$204,800 for capital purchases and \$784,000 for the minimal recommended operating plan of the Sedona Shuttle, unless one of the revenue enhancements or cost-cutting options is selected. The capital costs assume that the vehicles will be amortized over five years.

Since the funding arena is complex and requires a long lead time for many revenue sources, it is important to develop a longer-term funding strategy to provide a stable ongoing operating subsidy for enhanced service, in addition to a short term strategy for funding project start-up. Appendix C provides detailed information on the various sources that could be used to fund the shuttle at each stage of implementation. Many of these sources are referenced in the discussion below.

### **Funding Plan**

Funding a shuttle service will require significant local contributions, particularly in the short term until parking restrictions are implemented. In order to assess the desirability of increased local taxes, City Council members will need to consider a number of factors that are not immediately apparent in the short-term, such as potential environmental benefits resulting from vehicle reductions and improved mobility for the transit dependent population. The following discussion presents funding scenarios to meet planned incremental growth in the shuttle system.

### **Operating Costs**

Detailed operating costs are provided in Appendix D. As indicated in Figure 3-1 below, fares will generate less than one fifth of the estimated \$784,000 operating cost of the Sedona Shuttle under the Minimal scenario. Net parking income – taking into account operating expenses and installation - at the \$0.50 per hour level would generate an additional \$203,000. It should be noted that although the Uptown turnback presents opportunities for the City to regulate on-street parking, the current plan for the turnback could have an impact on the parking fee revenues.

The remaining revenue will need to be generated through local, state and federal funding sources. Although there are promising opportunities for creative funding at a state and federal level in the medium term, it is likely that the start up funding for the Sedona Shuttle will be largely from local and regional sources, with some important matching funds available from conventional federal sources.

The federal FTA Section 5311 Rural Transit Assistance program, administered through ADOT, is a stable and reasonable source for approximately \$100,000 per year in operating funds. This funding is very likely to persist through the federal transportation bill reauthorization pending in 2003. Sedona can augment these funds with the \$57,000 in State LTAF funds it is already budgeted to receive. Together, in the short term, these funds will be the only state/federal operating support available to the shuttle. Other sources may become available, especially for system expansion, after the federal transportation bill is reauthorized in 2003.

Other components of shuttle operations support would need to be in the form of new dedicated funding sources. Private contributions could potentially raise \$60,000 per year, leaving about \$222,000 in outstanding subsidy, including regional and local public subsidies. This subsidy could be drawn from General Funds, or by raising the bed tax by one-half percent, which would exceed the required amount to fill the gap. The balance could also be raised through an increase in the parking fee to \$1 per hour, or another local tax.

In addition to this minimal funding scenario, additional funding will be needed for a half-time staff person to oversee planning activities, coordinate the work of the committees, and guide the administrative entity through the solicitation process. We estimate this annual cost to be approximately \$25,000.

**Figure 3-1 Potential Minimal Service Funding Scenario**

<b>Funding Source</b>	<b>Annual Funding</b>
Fares	\$142,000
Net Parking Revenues	\$203,000
Section 5311 (Federal)	\$100,000
LTAF (State)	\$57,000
Private Contributions	\$60,000
Regional & Local Subsidy	\$222,000
<b>TOTAL</b>	<b>\$784,000</b>

## **Capital Costs**

Capital costs for a shuttle system in the Sedona area will depend on whether a turnkey operation will be selected, in which the contracted cost includes all capital costs such as vehicles and facilities, or whether the shuttle provider is only responsible for operating costs. Since the financial analysis has assumed the latter scenario, this section will

address the capital costs required to initiate service in a non-turnkey environment. Capital costs will be much greater at service start-up than in subsequent years because vehicles — the most costly of capital items — are obviously required before service can be implemented. Following the first year of operation, capital costs dramatically decrease because all of the primary capital investments will have already been made. The most significant exception is the requirement for a facility once the fleet size is too large to be maintained and stored in existing garages. In the Minimum Scenario and possibly with the addition of some of the modular enhancements, the system can be operated through a combination of local privately owned garages and the storage of the Cottonwood vehicles at a Cottonwood facility. However, as the fleet expands to the 14 to 18 vehicle range in the Maximum Scenario, a new facility will need to be built. This facility will need to be large enough to house the administration building, two bus bays, lifts, drivers' room, parts room, supervisor's office, and allow for bus circulation. The estimated cost of such a facility is approximately \$600,000 to \$750,000, exclusive of land costs. A minimum of one acre of land is needed, and this may be secured through negotiations between the USFS and the shuttle administrative entity. As indicated below, the cost of a CNG facility would be considerably higher.

Capital costs can be partially subsidized through funding sources such as FTA Sections 5310 and 5311 and the Public Lands Highways Program (see Appendix C). In addition, ADOT has indicated that another \$1 million should be available for capital costs statewide next year, and that Section 5311 funds may be expanded considerably, depending on current Federal budget negotiations, which tend to favor rural transportation programs.

Estimated capital costs are summarized in Figure 3-2. Assuming the Minimal Operable Scenario is implemented in the first year of service (FY 2004/05), the minimum capital cost is estimated at approximately \$205,000. Of this amount, vehicles represent over 80 percent of the costs. These vehicle costs could be even higher depending on the fueling technology utilized, but assume that no transit storage, fueling or maintenance facility would be constructed. Instead, the shuttle operation would make use of existing facilities in the region. For example, fueling could be provided at a commercial fueling facility or maintenance could be outsourced to an existing facility.

Although discussed under the service scenarios, the sharing of real-time trip information using ITS technologies is not included in the first-year capital budget. The installation of an Automatic Vehicle Locator (AVL) or global positioning system would require significant additional expenses, but would be encouraged as the various service modules are added.

**Figure 3-2 First Year Capital Budget - Minimal Operable Scenario with Minimum Start-Up Costs**

Capital Expenses	FY 2004/05	
Shuttle Vehicles	\$124,800	5 conventionally fueled vehicles at \$80,000 each*
Shelter Program	\$50,000	10 at \$5,000 each
Signage Program	\$10,000	40 signs at \$250 each
Scheduling Equipment and Software	\$8,000	Basic software and equipment
Radio Dispatch System	\$5,000	
Miscellaneous Expense	\$7,000	Informational materials, printing, office equipment, etc.
Total 1st Year Capital Expenses	\$204,800	

\*Based on amortized costs over five years, 6% interest rate. For CNG vehicles, total cost would be \$575,000, before amortization. Additional expense for the design and construction of a fueling facility would be required at approx. \$1.5 million.

## Cost Assumptions

### Vehicles

Capital costs incurred by the system depend less on the type of shuttle vehicle than on the type of fuel used by the vehicles. For example, gasoline or clean diesel vehicles can be fuelled at a commercial fueling station, so no new fuelling facilities would be required to initiate a shuttle service in Sedona. In contrast to gasoline, for compressed natural gas (CNG) or liquid natural gas (LNG) vehicles, new fueling facilities would be required at a substantial cost. For a small CNG fueling facility, the design and construction costs range from \$1.2 to \$1.7 million. These costs could be shared by multiple entities (schools, counties, etc.) that might use the CNG facility.

While the “cleanest” vehicle for Sedona would be an electric or fuel cell vehicle, the range of most of today’s battery-powered electric vehicles is under 75 miles. Most electric vehicles performing shuttle operations can therefore run for only four to five hours between battery replacement. As a result, a battery change-out would likely occur during service hours, possibly requiring a larger fleet. There may be other logistical constraints in terms of the operation of electric vehicles. However, if an implementation plan is developed, the planning committee may want to examine the possibility of deploying electric vehicles on the West Sedona/Village of Oak Creek routes, which operate on largely level and undulating terrain, and do not cover the extensive distances of the Cottonwood segment. Community input has indicated a high value on the selection of these kinds of vehicles for at least part of the service. It should be emphasized that the “clean diesel” vehicle proposed for service start-up is considerably cleaner than traditional diesel vehicles and approaches the level of

particulate controls found in alternative vehicles, primarily through the use of low sulphur fuels and particulate traps.

Thus, while Sedona's preferred objective would be to utilize alternative technology vehicles, these may be prohibitively expensive at the shuttle startup unless they can be provided by the contractor as part of a turnkey system. While this is certainly a goal worth pursuing, requiring clean vehicles as part of the solicitation will significantly limit the number of potential bidders and result in a premium on operating costs. To develop a preliminary capital cost plan, the cost for shuttle vehicles is assumed at \$80,000 each. This assumes a gasoline or clean diesel vehicle, painted and including the farebox, radio, wheelchair lift, and basic amenities. This cost is for a standard 20-ft. cutaway bus, but the bus could be configured differently or fueled using CNG. If CNG vehicles were to be purchased, additional costs of about \$35,000 would be expected, resulting in a cost per unit of \$115,000. Other types of vehicles, such as a small trolley bus, are available but would cost nearly two and one-half times the cutaway price.

All vehicles can be made unique with interesting color schemes, designs, or seating configurations, with an emphasis on reflecting the special character of the Red Rock region.

### **Signs and Shelters**

Bus stop signs should be installed at all scheduled stops and certain flag stops.

The estimated cost of a new bus stop sign plus installation is \$80. A sign pole is estimated at \$170 with installation. Because there are no existing bus stop signs in the Sedona area, virtually all new signs will require a pole.

Bus shelters would be a crucial element of an overall service provision strategy for a shuttle in Sedona, especially since summer temperatures could be high. The plan includes the installation of 10 shelters during the first year to be placed at the most critical stops. The estimated cost for a basic shelter, including concrete pad, is \$5,000. Using interesting signage or materials such as copper paint, tile or stucco, these stops can portray a "Sedona theme." For specially constructed architect-designed shelters, costs would be higher. For example, if a special shelter were to be constructed in Uptown, three other shelters may need to be eliminated to keep costs the same.

### **Scheduling Equipment and Software**

To implement an efficient flex route service and dispatch program, basic paratransit scheduling software (and the computer equipment on which to operate it) may be required. Based on a review of available software options, the plan estimates a one-time capital cost of about \$8,000 for a new software package and equipment. Scheduling could be conducted on a manual basis at the outset, due to the small number of vehicles required.

### **Radio System**

Two-way radios will be required for drivers and dispatchers to communicate with one another. The costs for a basic radio system for five vehicles and the main receiver is estimated at \$5,000.

### **Parking Meters and Intercept Parking**

The total costs for the purchase and maintenance of the Uptown parking meters is estimated at \$127,000. Assuming a 15 year bond, the annualized capital costs are \$13,000. In the Maximum scenario, the amortized annual capital cost of the intercept lot is estimated at \$129,000.

### **Miscellaneous Expenses**

The team recommends that \$7,000 be set aside for miscellaneous office and maintenance capital equipment purchases during the first year. This capital expense is an important item in all operations, but is often overlooked in capital plans.

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